

REMARKS

Status of Application

Applicant thanks the Examiner for initialing and returning the PTO SB/08 Forms submitted with the Information Disclosure Statements of February 3, 2006 and February 15, 2008. Applicant, however, respectfully requests that the Examiner acknowledge Applicant's claim to foreign priority under 35 U.S.C. § 119, and receipt of the priority document filed February 3, 2006; and accept the drawings filed on February 3, 2006 in the next Office communication.

Claims 1-26 have been examined.

By this Amendment, Applicant is amending claims 1, 4-6, 8-16, 18, 20-24, and 26; and canceling claim 2.

Claims 1 and 4-26 are rejected under 35 U.S.C. 102(b) as being allegedly anticipated by Giza (US 7,329,693).

Claim 2 is rejected under 35 U.S.C. 103(a) as being allegedly unpatentable over Giza and further in view of Rubber Engineering (SU 418341; hereinafter "RE'341") and/or Rubber Engineering (SU 234659; hereinafter "RE'659") and/or Suzuki (JP 9-302592) and/or Ajiro (JP 56-167432).

Claim 3 is rejected under 35 U.S.C. 103(a) as being allegedly unpatentable over Giza.

Claim Rejections - 35 USC § 102

Claims 1 and 4-26 are rejected under 35 U.S.C. 102(b) as being allegedly anticipated by Giza. Applicant respectfully traverses this rejection.

Claim 1

Amended claim 1 now incorporates the subject matter of canceled claim 2. Thus, Applicant's remarks pertain to Giza further in view of RE'341 and/or RE'659 and/or Suzuki and/or Ajiro. Amended claim 1 now recites, in part, "uniformizing the coating of the adhesive material on the twisted cord *through an interlacer or a blow nozzle after the spraying*".

The Examiner asserts:

while the reference fails to expressly suggest a step of removing excess adhesive, such a technique is extremely well known, as shown for example by Rubber Engineering '341, Rubber Engineering '659, Suzuki, and Ajiro. In particular, the reference evidence the known use of blow nozzles to remove excess adhesive or coating on a tire cord and applicant has not provided a conclusive showing of unexpected results to establish a criticality for the claimed method.

Applicant respectfully submits that one of ordinary skill in the art at the time of the presently-claimed invention would not have been motivated to combine Giza and/or RE'341 and/or RE'659 and/or Suzuki and/or Ajiro as suggested by the Examiner because there is no suggestion of motivation for doing so in the references themselves or the knowledge available to one of ordinary skill in the art without resorting to impermissible hindsight. Giza teaches that after the tire cord is immersed in the undercoat composition, the tire cord is, "*passed between squeeze rolls* to remove the excess undercoat composition". (See col. 12, lines 3-4). Furthermore, Giza teaches, "the tire cord having the ultraviolet-cured undercoat layer was immersed in the adhesive composition shown in Table 1 and *passed between squeeze rolls* to remove the excess adhesive composition". (See col. 12, lines 10-13). Alternately, RE'341, RE'659, and Suzuki teaches blowing air to remove excess compound. (See Abstracts). Also, opposite to what the Examiner claims, Ajiro discloses a "long vacuum nozzle for *sucking* the excess liquid". (See Abstract). Thus RE'341, RE'659, Suzuki, and Ajiro does not disclose or suggest, "uniformizing the coating

of the adhesive material on the twisted cord *through an interlacer or a blow nozzle after the spraying*".

Applicant submits that one of ordinary skill in the art would not have been motivated to combine Giza with RE'341, RE'659, Suzuki, or Ajiro, as Giza teaches using squeeze rolls to remove the excess adhesive composition while RE'341, RE'659, and Suzuki teaches blowing air to remove excess compound, and Ajiro teaches a "long vacuum nozzle for sucking the excess liquid". Accordingly, Giza and RE'341, RE'659, Suzuki, and Ajiro teach fundamentally different methods of removing excess compound; thus Giza and RE'341, RE'659, Suzuki, and Ajiro are inapposite because of the disparity as pointed out above, and the only possible motivation for the Examiner's proposed combination is Applicant's own disclosure, the reliance on which constitutes impermissible hindsight reconstruction under MPEP §2143 (see also *In re Vaeck*, 20 USPQ 1438 (Fed. Cir. 1991)).

Applicant respectfully submits that RE'341, RE'659, Suzuki, and Ajiro do not compensate for the deficiencies of Giza, and thus, Giza, RE'341, RE'659, Suzuki, and Ajiro, alone or in combination, do not teach or suggest all of the features of claim 1.

Accordingly, claims 4-26 should be patentable at least by virtue of their dependency from claim 1.

Claim 4

Claim 4 recites in part, "the adhesive material has a viscosity of 50 to 3000 mPa•s". The

Examiner asserts:

the adhesive composition of Giza appears to be identical to that of the claimed invention (components A-D) and as such, one of ordinary skill in the art at the time of the invention would have expected the adhesive of Giza to demonstrate the claimed viscosity.

Applicant respectfully disagrees for the following reasons.

Giza discloses butadiene polymers with a viscosity of 3.4 Pas. (See col. 4, lines 17-18). Giza, however, does not disclose or suggest “the adhesive material has a viscosity of 50 to 3000 mPa•s”.

Furthermore, the assertion that “one of ordinary skill in the art at the time of the invention would have expected the adhesive of Giza to demonstrate the claimed viscosity” (see office action, page 2), does not follow as Giza clearly discloses a viscosity higher than the claimed invention (see col. 4, lines 17-35). Thus, one of ordinary skill in the art at the time of the invention would not have expected the adhesive of Giza to demonstrate the claimed viscosity as Giza does not disclose or suggest a “viscosity of 50 to 3000 mPa•s” as recited in claim 4.

Claim 8

Amended claim 8 now recites:

a method of producing a tire cord according to claim 1, further comprising forming a composite by adhering an adhesive layer for rubber with a rubber mixture comprising sulfur, wherein if a count quantity of sulfur atoms in a section perpendicular to the adhered face through a fluorescent X-ray is measured by an X-ray analysis through an electron microscope, a sulfur count quantity in the adhesive layer for rubber becomes larger than an average distribution of the sulfur count quantity in the adhered rubber.

In Giza, the “amount of sulfur migrated from the rubber layer into the adhesive layer was evaluated by whether the sulfur content in the adhesive layer is high or low as compared to the average distribution of sulfur content in the rubber layer”. (See col. 7, lines 65-67 and col. 8, lines 1-2). Giza, however, does not disclose or suggest that the “sulfur count quantity in the adhesive layer for rubber ***becomes larger*** than an average distribution of the sulfur count quantity in the adhered rubber” as recited in claim 8.

Claim Rejections - 35 USC § 103

Claim 2 is rejected under 35 U.S.C. 103(a) as being allegedly unpatentable over Giza and further in view of RE'341 and/or RE'659 and/or Suzuki and/or Ajiro.

Claim 3 is rejected under 35 U.S.C. 103(a) as being allegedly unpatentable over Giza. Applicant traverses these rejections.

Claim 3

Claim 3 recites in part, “***a predetermined amount*** of the adhesive material is fed by a ***pump*** in the spraying”.

Giza teaches ***immersing*** the tire cord in an adhesive composition (See col. 12, lines 11-12), but does not disclose or suggest spraying, “***a predetermined amount*** of the adhesive material” as recited in claim 3.

Furthermore, it appears that the Examiner is relying on common knowledge or taking official notice. Applicant respectfully reminds the Examiner that it would not be appropriate to take official notice of facts without citing a prior art reference where the facts asserted to be well known are not capable of instant and unquestionable demonstration as being well-known. (See MPEP 2144.03). Further, it is never appropriate to rely solely on “common knowledge” in the art without evidentiary support in the record, as the principal evidence upon which a rejection was based. *Zurko*, 258 F.3d at 1385, 59 USPQ2d at 1697. Applicant respectfully submits that it is not common knowledge or well-known in the art that “a predetermined amount of the adhesive material is fed by a ***pump*** in the spraying”.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the

Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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